

Special Issue

Mechanics of Construction Materials and Structures: Theory and Computational Issues

Message from the Guest Editors

This Special Issue on “Mechanics of Construction Materials and Structures: Theory and Computation” aims to bring together recent research and developments in this dynamic field. We invite submissions that explore a broad range of topics, including, but not limited to, the following:

- Advanced constitutive modeling of innovative materials;
- Multi-scale and multi-physics analysis of material behavior;
- Failure analysis and fracture mechanics in construction materials;
- Micro or macro modeling of retrofitted structural members and buildings, including advanced modeling approaches like finite element methods (FEMs) or discrete element methods (DEMs);
- Applications of different computational methods for dynamic or static analysis;
- Proposal of new theoretical formulations for structure and infrastructure design;
- Case studies of theoretical and computational mechanics in construction projects;
- Integration of experimental data with computational models;
- Applications of machine learning and AI in mechanics analysis.

Guest Editors

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Deadline for manuscript submissions

closed (20 January 2025)



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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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